Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MASAYUKI OHNO and HISASI KANEDA

Appeal No. 1998-2801
Application No. 08/789,160

ON BRIEF

Before KIMLIN, WARREN and LIEBERMAN, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 23-26, all the claims remaining in the present application.

Claim 23 is illustrative:

23. A method of treating a polychlorinated aromatic compound or a hydrocarbon oil containing a polychlorinated aromatic compound comprising the steps of:

heating and stirring the polychlorinated aromatic compound or hydrocarbon oil containing the polychlorinated aromatic compound and

adding potassium tert-butoxide to said polychlorinated aromatic compound or hydrocarbon oil containing said polychlorinated aromatic compound to conduct a reaction therewith in the absence of a solvent and at a temperature of from 100 to 300EC and remove chlorine from said polychlorinated aromatic compound.

The examiner relies upon the following references as evidence of obviousness:

Peterson	4,532,028	Jul. 30, 1985
Streck et al. (Streck)	4,776,947	Oct. 11, 1988

Appellants' claimed invention is directed to a method of treating polychlorinated aromatic compounds, PCBs, by reacting potassium tert-butoxide with the polychlorinated aromatic compounds. The reaction removes chlorine from the polychlorinated aromatic compound. Also, the reaction is carried out in the absence of a solvent.

Appealed claims 23-26 stand rejected under 35 U.S.C. § 103 as being unpatentable over Streck in view of Peterson.

We have thoroughly reviewed the respective positions advanced by appellants and the examiner. In so doing, we concur with appellants that the applied prior art fails to establish a prima facie case of obviousness for the claimed

subject matter. Accordingly, we will not sustain the examiner's rejection for essentially those reasons expressed in appellants' principal and reply briefs on appeal. We add the following primarily for emphasis.

Streck, the primary reference, discloses a method of treating polychlorinated aromatic compounds by reacting the compounds with alkali or alkaline earth alcoholates having 6-25 carbon atoms. Streck specifically teaches the following at column 3, lines 36-41:

> An important criterion for the present method is that the alcoholate employed be soluble in the hydrocarbon oils under the given reaction conditions. This solubility criterion is met by all alcoholates having straight-chain, branched, or cyclic alkyl groups with at least 6 carbon atoms [emphasis added].

Accordingly, it cannot be gainsaid that Streck fails to teach or suggest the claimed reactant, potassium tert-butoxide.

Peterson, on the other hand, discloses that potassium tert-butoxide is the most preferable alcoholate used for treating polychlorinated aromatic compounds. However, the reaction of Peterson is carried out with a sulfoxide solvent, and Peterson expressly discloses that "[t]he extraction rate of the contaminant from the organic phase by the sulfoxide

solvent is believed to be the rate controlling step for the process"

(column 3, lines 26-30). Hence, Peterson provides no teaching or suggestion that the reaction with potassium tert-butoxide can be carried out in the absence of a solvent, as specified in the appealed claims.

Accordingly, we concur with appellants that the collective teachings of Streck and Peterson to one of ordinary skill in the art would have been that a solvent is necessary if the alcoholate reactant has 1 to 5 carbon atoms, whereas a solvent is not necessary if the alcoholate has at least 6 carbon atoms. In our view, the cited references provide no teaching or suggestion of reacting potassium tert-butoxide with polychlorinated aromatic compounds in the absence of a solvent.

In conclusion, based on the foregoing, the examiner's decision rejecting the appealed claims is reversed.

REVERSED

EDWARD C. KIMLIN)
Administrative Patent Judge)
)

CHARLES F. WARREN Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
PAUL LIEBERMAN Administrative Patent Judge	)	

ECK:clm

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